

IN THE CLAIMS:

This version of the claims replaces all previous versions and listings of the claims.

1. (original) A container (10) for interior cooling by reception of microwave radiation, comprising:
  - a lid (20);
  - at least one integrated electrical cooler (70);
  - at least one integrated microwave receiving rectenna (50); and
  - at least one integrated microwave shield (60) for shielding microwaves from reaching the interior of the container (10);wherein container incident microwaves are received and converted into direct-current voltage through the rectenna (50), which powers the electrical cooler (70) for cooling the interior of the container (10).
2. (original) A container according to claim 1, wherein the cooler (70) is a peltier cooling element.
3. (currently amended) A container according to claim 1 ~~claims 1-2~~, wherein the rectenna (50) comprises at least one microwave receiving antenna, a low pass filter, a rectifying diode, a DC filter and a load resistor.
4. (currently amended) A container according to claim 1 ~~claims 1-3~~, wherein the microwave shield (60) is a metal sheet or metal net with small apertures.
5. (currently amended) A container according to claim 1 ~~claims 1-4~~, wherein the rectenna (50) is a diode rectenna.
6. (currently amended) A container according to claim 3 ~~claims 3-5~~, wherein the at least one antenna includes ~~antennas are~~ dipole, patch or loop antennas or an array of such antennas.

7. (currently amended) A container according to claim 1 ~~claims 1-6~~, wherein the container has walls (20, 30, 40) and wherein the electrical cooler (70), the rectenna (50) and the microwave shield (60) are integrated as separate layers in the walls (20, 30, 40) of the container.

8. (currently amended) A container according to claim 7, wherein the walls include a bottom wall-section (40) that comprises an outermost microwave-shield layer (60), a rectenna electric circuit layer and an innermost electric cooling layer (70).

9. (currently amended) A container according to claim 7 ~~claims 7-8~~, wherein the walls include a closed side wall-section (30) that comprises an outermost microwave-receiving rectenna layer (50), a microwave-shield layer (60) and an innermost electric cooling layer (70).

10. (currently amended) A container according to claim 1 ~~claims 1-9~~, wherein the lid (20) comprises at least one of an outermost microwave receiving rectenna layer (50), a microwave-shield layer (60) and an innermost cooling layer (70).

11. (currently amended) A container according to claim 1 ~~claims 1-10~~, wherein incident microwaves are received by the rectenna antennas, wherein the at least one rectenna is located in the lid ~~lid~~ and in a side wall section (20, 30) of the container, wall-sections (20, 30) and are converted into direct-current voltage (DC) through the electric circuitry of the rectenna, wherein a rectenna is also which is integrated in a the bottom wall-section wall section of the container (40) for powering the electrical coolers (70) in the an innermost portion of the bottom wall section and side wall section wall-sections (30, 40) of the container for cooling its interior through surfaces of the innermost bottom wall section and side wall section wall-section surfaces.

12. (currently amended) A container according to claim 1 ~~claims 1-11~~, wherein the container ~~it~~ is manufactured in aluminum, plastic or ceramic material.

13. (currently amended) A container according to claim 1 ~~claims 1-11~~, wherein the container ~~it~~ is manufactured in a microwave absorbing material.

14. (currently amended) A container according to claim 1 ~~claims 1-13~~, wherein the container ~~it~~ has a rounded form ~~forms~~.

15. (currently amended) A container according to claim 1 ~~claims 1-14~~, wherein the microwave radiation is provided by a microwave oven.

16. (currently amended) A container according to claim 1 ~~claims 1-15~~, wherein a thermometer is integrated in the container displaying a temperature of at least one of the container (10), cooler (70) and a content provided therein.

17. (original) Method for cooling contents in a container by microwave radiation, said container comprising a lid, at least one integrated electrical cooler, at least one integrated microwave receiving rectenna, and at least one integrated microwave shield for shielding microwaves from reaching the interior of the container, comprising the method steps of:

sealing the container through closing the container lid;

applying microwave radiation onto the outer surfaces of the container by utilizing a microwave oven; and

wherein container incident microwaves are received and converted into direct-current voltage (DC) through the rectenna, which powers the electrical cooler for cooling the interior of the container and its contents.

18. (original) A method according to claim 17, wherein the cooling is accomplished by an integrated peltier cooling element.

19. (currently amended) A method according to claim 17 ~~claims 17-18~~, wherein the rectenna is arranged to comprise at least one microwave receiving antenna, a low pass filter, a rectifying diode, a DC filter and a load resistor.

20. (currently amended) A method according to claim 17 ~~claims 17-18~~, wherein the microwave shield is arranged to comprise a metal sheet or metal net with small apertures.

21. (currently amended) A method according to claim 17 ~~claims 17-19~~, wherein the rectenna is arranged to comprise a diode rectenna.

22. (currently amended) A method according to claim 19 ~~claims 19-21~~, wherein the at least one antenna is ~~antennas are~~ arranged to comprise dipole, patch or loop antennas or an array of such antennas.

23. (currently amended) A method according to claim 17 ~~claims 17-22~~, wherein the electrical cooler, the rectenna and the microwave shield are arranged to be integrated as separate layers in the walls of the container.

24. (currently amended) A method according to claim 17 ~~claim 17-23~~, wherein the container has a bottom wall-section ~~of the container that~~ is arranged to comprise an outermost microwave-shield layer, a rectenna electric circuit layer and an innermost electric cooling layer.

25. (currently amended) A method according to claim 17 ~~claims 17-24~~, wherein the container has a closed side wall-section ~~of the container that~~ is arranged to comprise an outermost microwave-receiving rectenna layer, a microwave-shield layer and an innermost electric cooling layer.

26. (currently amended) A method according to claim 17 ~~claims 17-25~~, wherein the lid of the container is arranged to comprise at least one of an outermost microwave receiving rectenna layer, a microwave-shield layer and an innermost cooling layer.

27. (currently amended) A method according to claim 17 ~~claims 17-26~~, wherein incident microwaves are received by the at least one rectenna antennas, which is located in the lid- and side wall-sections of the container, and are converted into direct-current voltage through the electric circuitry of ~~the~~ another rectenna, that is

arranged in the bottom wall-section, for powering the electrical coolers located in the innermost bottom and side wall-sections of the container thus cooling the interior of the container through surfaces of the innermost bottom wall-section and side wall-section ~~surfaces~~.

28. (currently amended) A method according to claim 17 ~~claims 17-27~~, wherein the container is manufactured in aluminum, plastic or ceramic material.

29. (currently amended) A method according to claim 17 ~~claims 17-27~~, wherein the container is manufactured in a microwave absorbing material.

30. (currently amended) A method according to claim 17 ~~claims 17-29~~, wherein the container is manufactured with rounded forms.

31. (currently amended) A method according to claim 17 ~~claims 17-30~~, wherein the microwave radiation is provided by a user activation of the microwave oven.

32. (currently amended) A method according to claim 17 ~~claims 17-31~~, wherein a thermometer, integrated in the container, displays a temperature reading of at least one of the container, coolers and the content provided therein.